

APICAL

INDUSTRIES, INC.

ENGINEERING CHANGE NOTICE NO.

04186

SHEET 1 1

DWG NO. 41228-300-009

REV: B

PREPARED BY

J. GARDINER

DATE: 11/04/13

EFFECT ON DWG

☐ INC. ☒ UNINC.

DWG TITLE: FUEL SYSTEM INSTALLATION

APPROVED BY:

ENGR *J. Bravo*

MFG

David Barber

QC

[Signature]

EFF. CURRENT ORDER

TRANSACTION CODES (TC):
A-ADD C-CREATE
R-REVISE D-DELETE

REASON: REVISED F/N 26

ECR: N/A

**CONTROL COPY
ISSUED DATE
NOV 15 2013**

26	R	601.3704	3FT	FUEL HOSE		
F/N	TC	PART NUMBER	-001	DESCRIPTION	MATERIAL	SPECIFICATION
			QTY			
DOCUMENTS EFFECTED:					CHANGE CATEGORY	DER REVIEW REQUIRED
<input type="checkbox"/> MDL <input type="checkbox"/> INSTALL INSTRUCTIONS <input type="checkbox"/> ICA <input type="checkbox"/> FMS <input checked="" type="checkbox"/> BOM					<input type="checkbox"/> MAJOR <input checked="" type="checkbox"/> MINOR	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO

1 2 3 4 5 6 7 8

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REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	INCORPORATED ECN 01832, 01895 & 02991	10-28-10	P. BRAVO
B	INCORPORATED ECN 03053, 03102, 03659 & 03800	02-06-13	P. BRAVO

UNINCORPORATED ECN(s)

04186

CONTROL COPY
ISSUED DATE

FEB 18 2013

- ALT. VENDOR: EATON P/N PS4023H000AE306A
ALT. VENDOR: EATON P/N PS4023H000AF200A
ALT. VENDOR: EATON P/N PS4023H134AE346A
ALT. VENDOR: EATON P/N PS4023H134AE336A

(USE WITH ITEM 17A)

(USE WITH ITEM 17)

BELL HELICOPTER, FT. WORTH, TX.

(USE WITH ITEM 29A)

(USE WITH ITEM 29)

BOND WITH CB200 CLICK BOND ADHESIVE.

COUNTER BORE TO PROVIDE RIVET RELIEF FOR EXISTING RIVET PATTERN AS REQUIRED.

THE COMPOSITE MATERIAL MUST BE SANDED TO REMOVE THE TOP COAT OR WAX COAT. LIGHTLY SAND THE NUT PLATE ALSO TO ENSURE MAXIMUM BONDING. BOND WITH LOCTITE 332 AND ACTIVATOR 7387.

MIN OF 2 NUTPLATES REQ'D IF CONFLICT FOR 3 NUTPLATES EXIST.

1. USEABLE ON BELL 412 S/N 33108 & SUB.

NOTES:

REF	42	600.1018	LOCTITE 7387		
REF	41	600.1017	LOCTITE 332		
3	40	601.1621	SCREW	MS27039-1-08	
3	39	601.0774	WASHER	NAS1149C0363R	
3	38	601.1945	INSERT (SELF-LOCKING)	TYE3005B3-8	
REF	37	41228-301-085-001	PANEL ASSY		
2	36	MS35489-46	GROMMET		
2	35	MS3367-1-9	TY-WRAP		
1	34	MS29513-216	O-RING		
3	33	MS27194-16	GASKET		
1	32	601.1949	SCREW	MS27039-1-11	
31	31	601.1365	SCREW	MS27039-1-10	
12	30	MS24693-296	SCREW		
REF	29A	AN815-16D	UNION		
1	29	41228-301-082-005	FITTING		
1	28	222-066-632-001	GASKET		
6	27	601.1900	NUTPLATE	MS21059-3	
2	26	NSF-51	TUBING	15 x .62 00 x .38 D.	
12	25	MS20426AD3-4	RIVET		
3	24	CB2009AA3S	NUTPLATE		
14	23	601.2182	WASHER	NAS1149D0332J	
33	22	601.1718	WASHER	NAS1149D0363J	
8	21	AN3-5A	BOLT		
6	20	AN3-4A	BOLT		
4	19	NAS43HT4-24	SPACER		
1	18	41228-301-087-001	MOUNTING ANGLE ASSY		
REF	17A	41228-301-082-007	CASTING, AFT FUEL CELL STAND PIPE		
1	17	41228-301-082-001	CASTING, AFT FUEL CELL STAND PIPE		
1	16	41228-301-081-001	STAND PIPE		
2	15	41228-301-079-001	DRAIN TUBE		
2	14	41228-301-078-001	GROMMET		
REF	13	41228-301-065-002	CAVITY ASSY		
REF	12	41228-301-065-001	CAVITY ASSY		
1	11	41228-301-055-001	TEE		
1	10	41228-202-142-002	COVER		
1	9	41228-202-142-001	COVER		
2	8	41228-202-141-001	FAIRING		
1	7	156538-8D0120	HOSE ASSY		
1	6	156538-8D0130	HOSE ASSY		
1	5	124K003-8CR-0346	HOSE ASSY		
1	4	124K003-8CR-0336	HOSE ASSY		
1	3	PS4023M350ET292A	HOSE ASSY		
1	2	PS4023M090ET292A	HOSE ASSY		
1	1	-001	INSTALLATION		
1	0	-001	INSTALLATION		

QTY REQ'D

PARTS LIST

2	32	601.1949	SCREW	MS27039-1-11	
31	31	601.1365	SCREW	MS27039-1-10	
12	30	MS24693-296	SCREW		
REF	29A	AN815-16D	UNION		
1	29	41228-301-082-005	FITTING		
1	28	222-066-632-001	GASKET		
6	27	601.1900	NUTPLATE	MS21059-3	
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33	22	601.1718	WASHER	NAS1149D0363J	
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6	20	AN3-4A	BOLT		
4	19	NAS43HT4-24	SPACER		
1	18	41228-301-087-001	MOUNTING ANGLE ASSY		
REF	17A	41228-301-082-007	CASTING, AFT FUEL CELL STAND PIPE		
1	17	41228-301-082-001	CASTING, AFT FUEL CELL STAND PIPE		
1	16	41228-301-081-001	STAND PIPE		
2	15	41228-301-079-001	DRAIN TUBE		
2	14	41228-301-078-001	GROMMET		
REF	13	41228-301-065-002	CAVITY ASSY		
REF	12	41228-301-065-001	CAVITY ASSY		
1	11	41228-301-055-001	TEE		
1	10	41228-202-142-002	COVER		
1	9	41228-202-142-001	COVER		
2	8	41228-202-141-001	FAIRING		
1	7	156538-8D0120	HOSE ASSY		
1	6	156538-8D0130	HOSE ASSY		
1	5	124K003-8CR-0346	HOSE ASSY		
1	4	124K003-8CR-0336	HOSE ASSY		
1	3	PS4023M350ET292A	HOSE ASSY		
1	2	PS4023M090ET292A	HOSE ASSY		
1	1	-001	INSTALLATION		
1	0	-001	INSTALLATION		

QTY REQ'D

PARTS LIST

NEXT ASSY(S)

41228-000-004

ORIGINAL DATE 06-28-01

DRAWN BY D. NELSON

CHECKER

DRAWING APPROVAL

CONTRACT No.

UNLESS OTHERWISE SPECIFIED

DIMENSIONS ARE IN INCHES

TOLERANCES UNLESS OTHERWISE SPECIFIED

2 PLACE DECIMALS ± .03

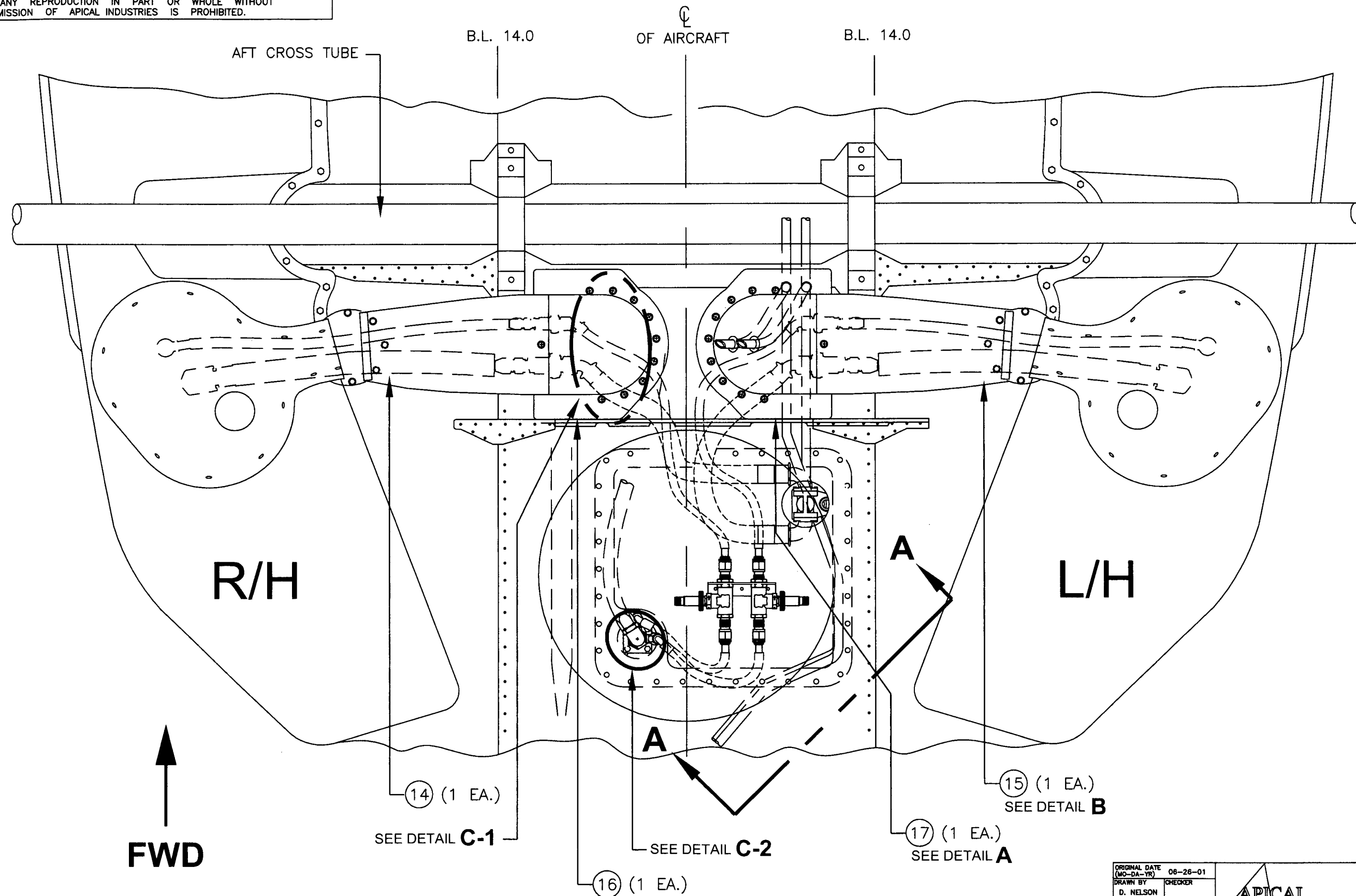
3 PLACE DECIMALS ± .010

ANGLES ± .1°

APICAL INDUSTRIES, INC.		2808 TEMPLE HEIGHTS DR. OKLAHOMA, OK 73109-3012 (770) 724-6200	
FUEL SYSTEM INSTALLATION			
SIZE B	CAGE CODE 07MZ6	DWG. No. 41228-300-009	REV B
SCALE NONE		SHEET 1 of 6	

1 2 3 4 5 6 7 8

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VIEW LOOKING UP AT
BOTTOM OF A/C

ORIGINAL DATE 08-26-01
(MO-DA-YR)
DRAWN BY CHECKER
D. NELSON

DRAWING APPROVAL

CONTRACT No.

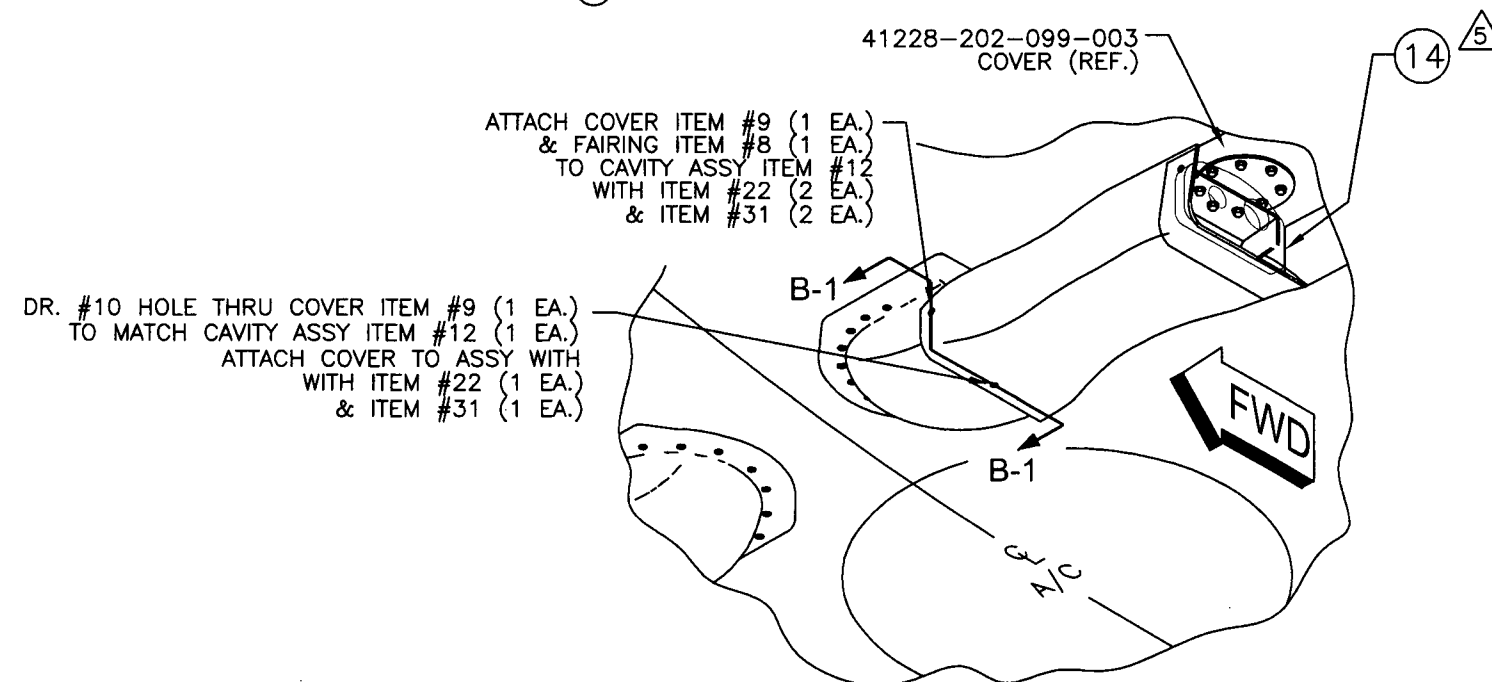
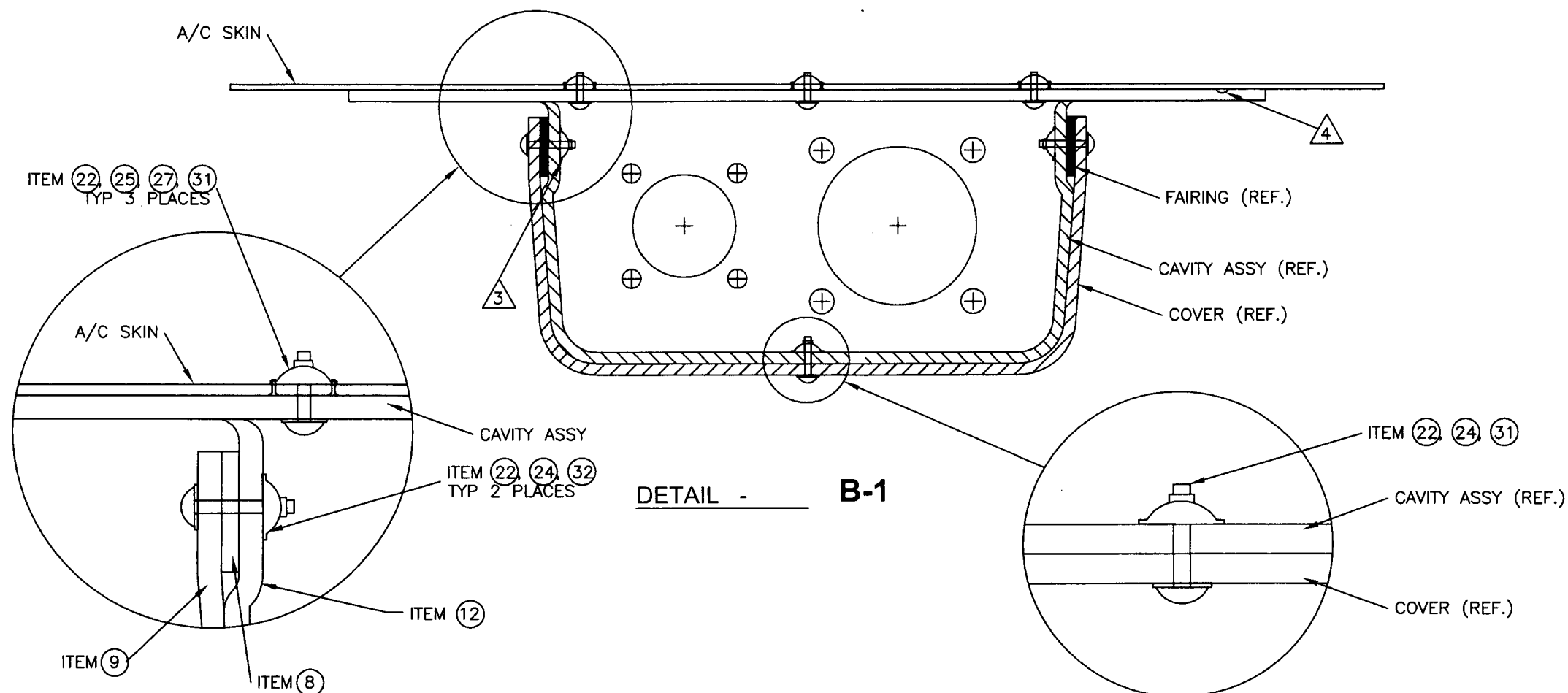
UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES ARE:
3 PLACE DECIMALS ± .03
2 PLACE DECIMALS ± .010
ANGLES ± .5°

APICAL
INDUSTRIES, INC.
2808 TEMPLE HEIGHTS DR.
GODDARD, GA 30039-3018 (770) 754-0300

FUEL SYSTEM
INSTALLATION

SIZE	CAGE CODE	DWG. No.	REV
B	07M26	41228-300-009	B
SCALE NONE			SHEET 2 of 6

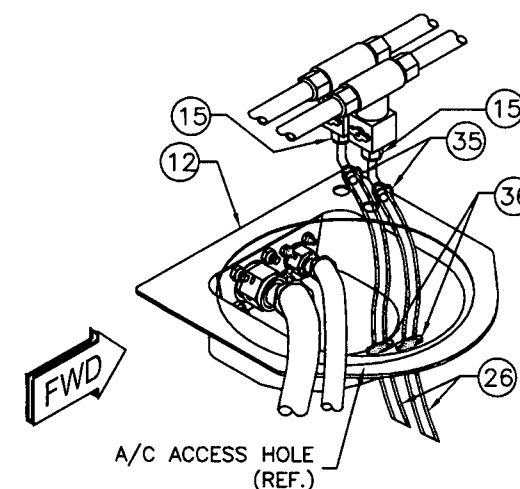
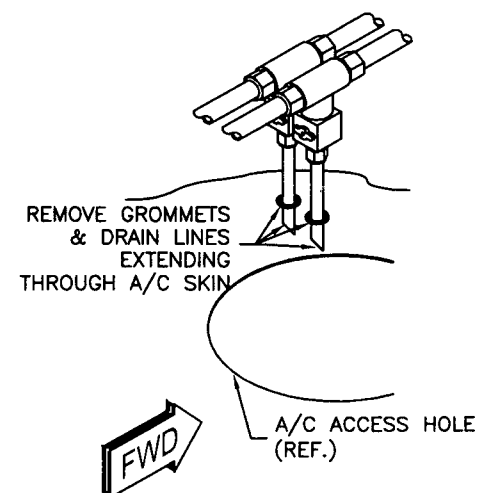
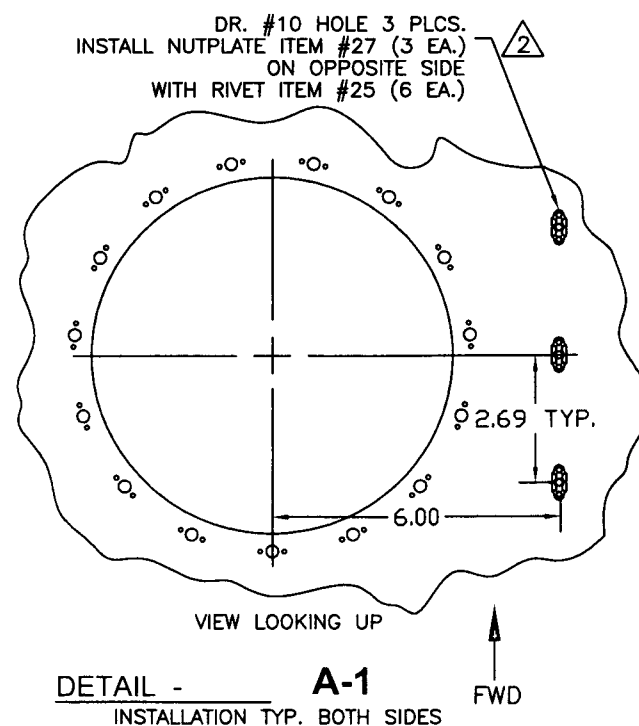
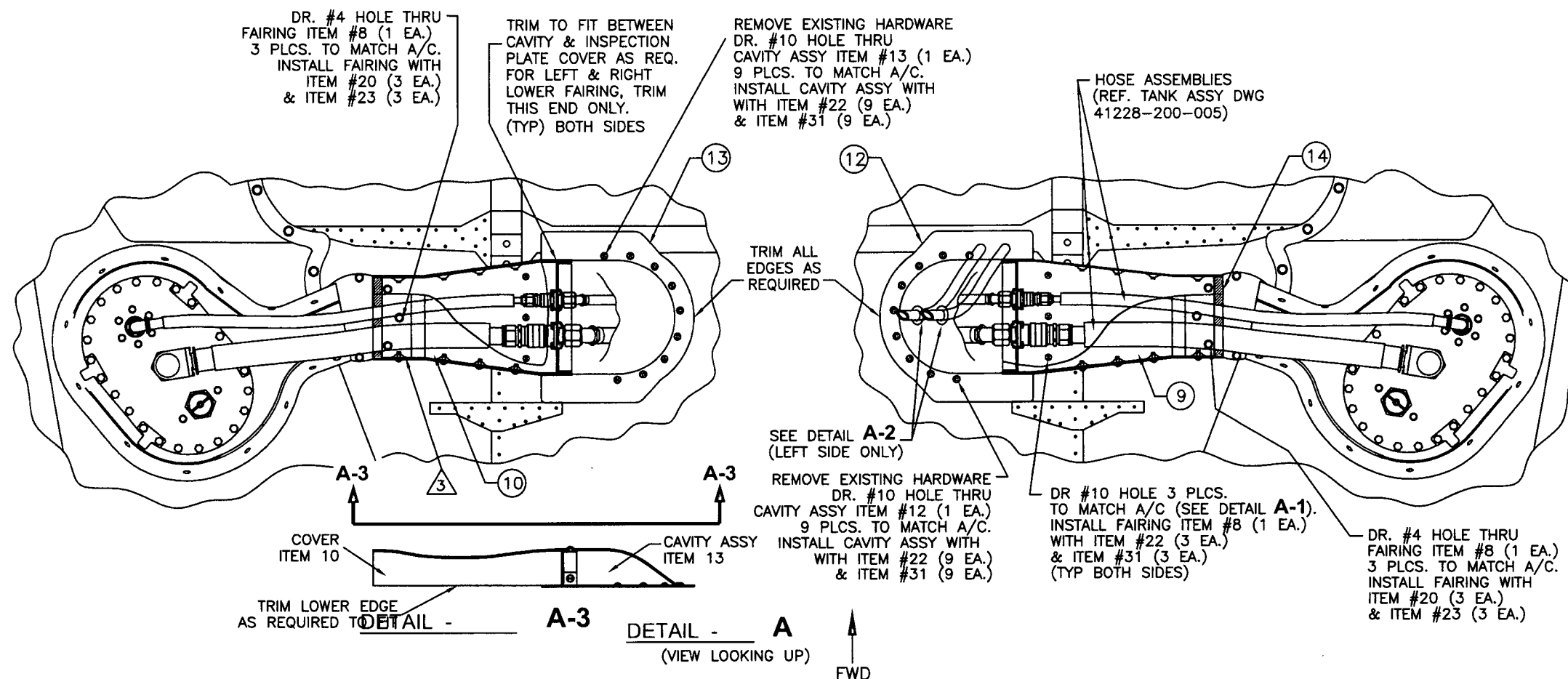
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DETAIL - B
INSTALLATION TYP. BOTH SIDES
WITH EXCEPTION OF COVER ITEM 9 & 10

ORIGINAL DATE (MO-DA-YR) 08-26-01		 <small>2808 TEMPLE HEIGHTS DR. OCCIDENT, CA 92659-3012 (714) 724-5200</small>	
DRAWN BY D. NELSON			
CHECKER		FUEL SYSTEM INSTALLATION	
DRAWING APPROVAL		CONTRACT No.	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES OR 2 PLACE DECIMALS ± .03 3 PLACE DECIMALS ± .010 ANGLES ± .1°		SIZE B	CAGE CODE 07M26
		DWG. No. 41228-300-009	REV B
		SCALE NONE	SHEET 3 of 6

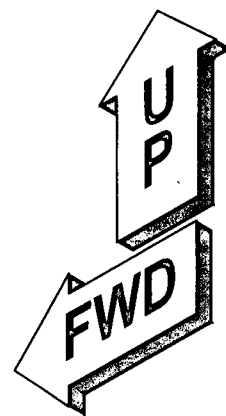
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ORIGINAL DATE (MO-DA-YR) 06-26-01		 <small>3908 TEMPLE HEIGHTS DR. COLUMBIA, OH 43002-3013 (760) 730-6300</small>	
DRAWN BY D. NELSON			
DRAWING APPROVAL		FUEL SYSTEM INSTALLATION	
CONTRACT No.		REV B	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 3 PLACE DECIMALS ± .03 2 PLACE DECIMALS ± .010 ANGLES ± .010		SIZE B	CAGE CODE 07M26
		DWG. No. 41228-300-009	SHEET 4 of 6
		SCALE NONE	

1 2 3 4 5 6 7 8

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LEFT SIDE

RIGHT SIDE

SECTION - **A-A**
(SEE DETAIL C) SHT 6

16 STAND PIPE
(SEE DETAIL C) SHT 6

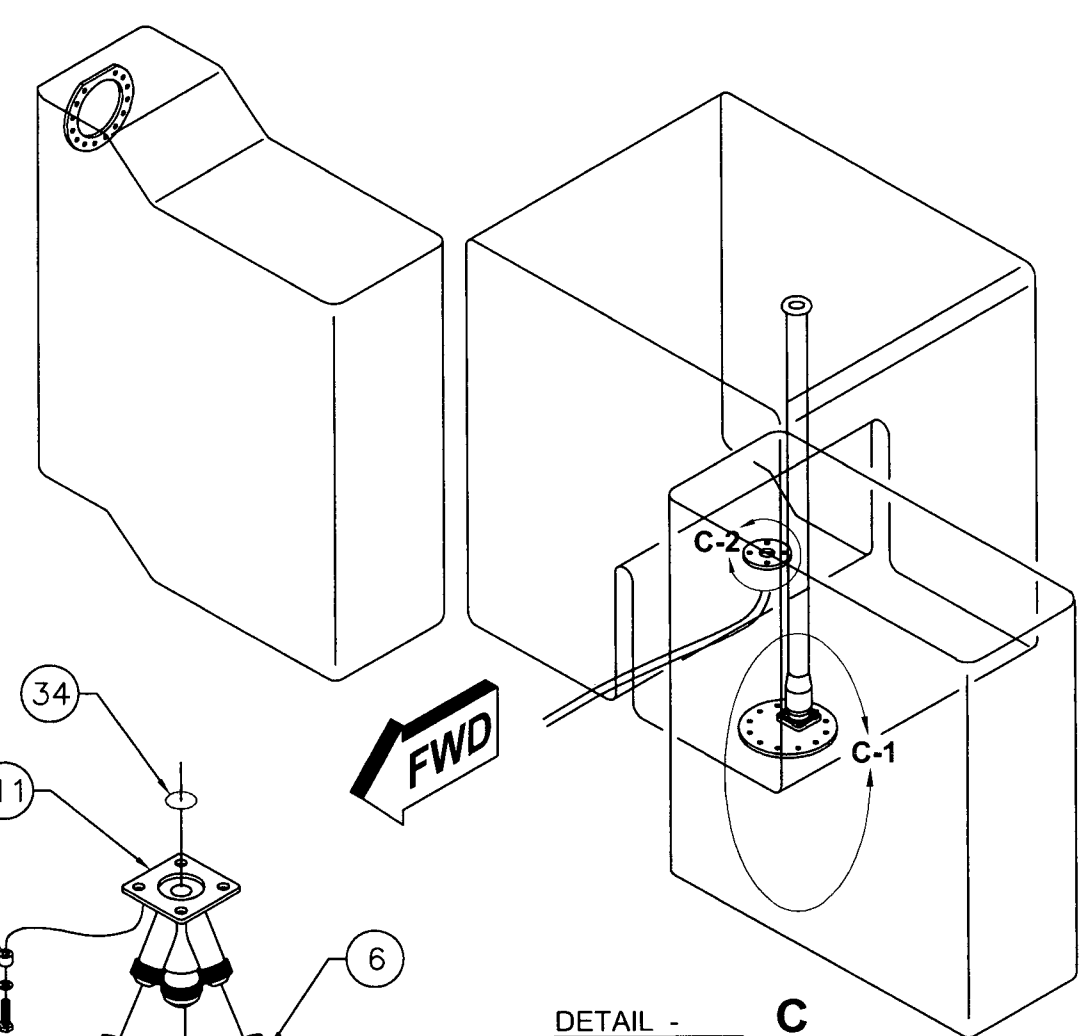
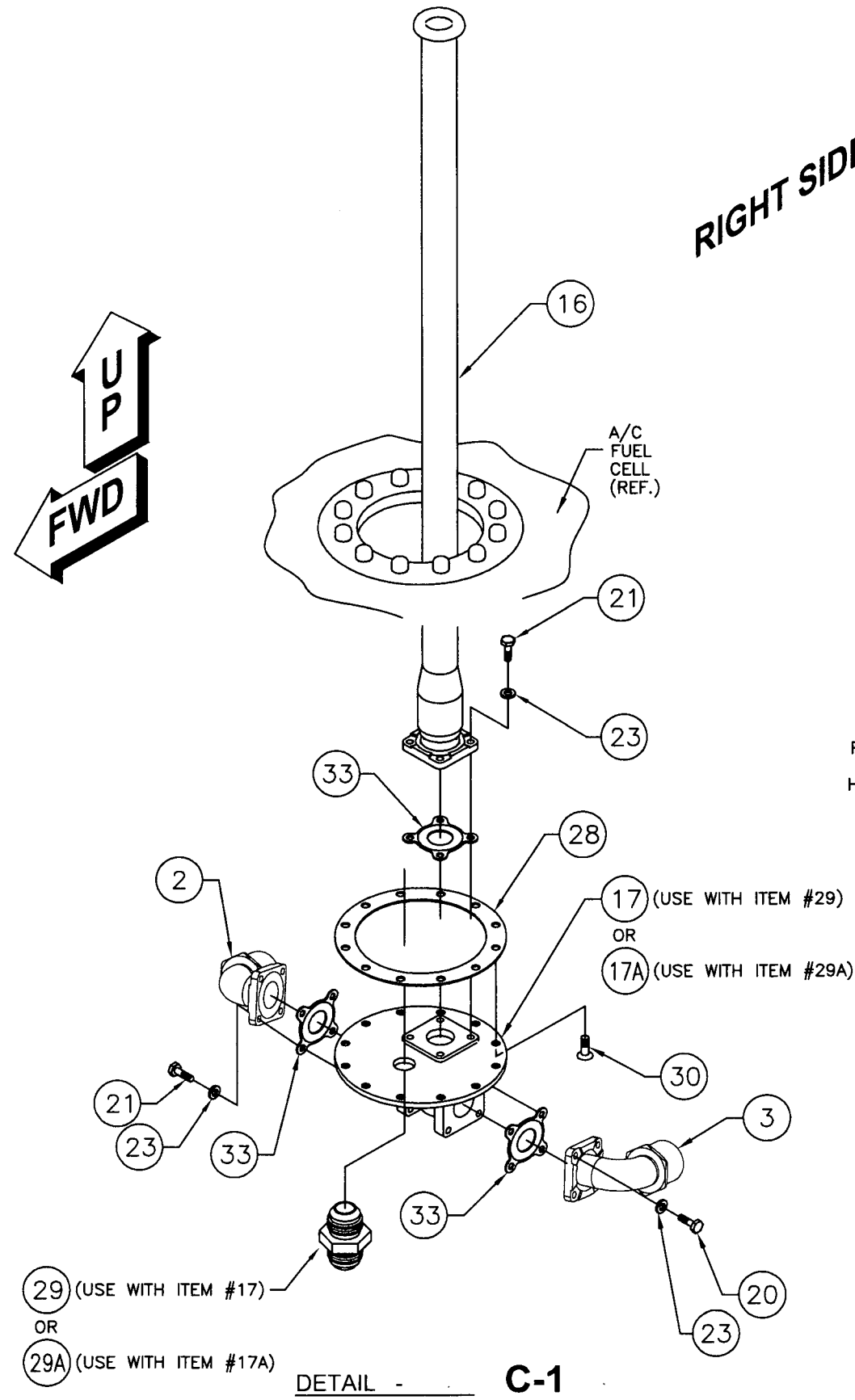
17 OR 17A
(SEE DETAIL C-1) SHT 6

37
(REF)


11 FITTINGS TO FACE
INBOARD & FWD
(SEE DETAIL C-2) SHT 6

ORIGINAL DATE (MO-DA-YR) 08-26-01		APICAL INDUSTRIES, INC. <small>3808 TEMPLE HEIGHTS DR. OCCIDENT, CA 92026-3513 (760) 734-0300</small>			
DRAWN BY D. NELSON					
DRAWING APPROVAL		CONTRACT No.			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON: 3 PLACE DECIMALS ± .03 3 PLACE DECIMALS ± .010 ANGLES ± .5°		SIZE B	CAGE CODE 07M26	DWG. No. 41228-300-009	REV B
SCALE NONE		SHEET 5 of 6			

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LEFT SIDE

ORIGINAL DATE (MO-DA-YR) 06-28-01		 2808 TEMPLE HEIGHTS DR. OCEANVILLE, OH 44830-3012 (716) 734-6300	
DRAWN BY D. NELSON			
DRAWING APPROVAL			
CONTRACT No.		FUEL SYSTEM INSTALLATION	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON: 2 PLACE DECIMALS ± .03 3 PLACE DECIMALS ± .010 ANGLES ± .5°		SIZE B	REV B
		CAGE CODE 07MZ6	DWG. No. 41228-300-009
		SCALE NONE	SHEET 8 of 6